

NWS FORM E-19 (COVER)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL WEATHER SERVICE

REPORT ON RIVER GAGE STATION

REVISED, PRINTED DATES: 08/02/2006, 08/22/2010

LOCATION: RAVENNA
STREAM: SOUTH LOUP RIVER
BASIN: LOUP 5

HSA: GID

REFERENCES:

RAVENNA NEWS - WEEKLY NEWSPAPER
USGS STATION DESCRIPTION - 08/10/1971
WATER RESOURCES DATA FOR NEBRASKA - USGS

ABBREVIATIONS:

BM	- bench mark	EPA	- Environmental Protection Agency
DS	- downstream	IBWC	- International Boundary and Water Comm.
US	- upstream	MSRC	- Mississippi River Commission
HW	- high water	MORC	- Missouri River Commission
LW	- low water	NOAA	- National Oceanic and Atmospheric Admin.
RB	- right bank	NOS	- National Ocean Survey
LB	- left bank	NWS	- National Weather Service
MGL	- mean gulf level	TVA	- Tennessee Valley Authority
MLW	- mean low water	USACE	- U.S. Army Corps of Engineers
MSL	- mean sea level	USBR	- U.S. Bureau of Reclamation
MLT	- mean low tide	USGS	- U.S. Geological Survey
MT	- mean tide	USWB	- U.S. Weather Bureau
WQ	- water quality	NGVD	- National Geodetic Vertical Datum
RM	- reference mark	NAD	- North American Datum
RP	- reference point		

LOCATION IDENTIFICATION: RVNN1
NWS INDEX NUMBER: 25-7040-5
USGS NUMBER: 06-7825.00

MAP OF GAGE LOCATION

LATITUDE: 41 00 42 SOURCE: USGS
LONGITUDE: 98 54 44

LOCATION: SOUTH LOUP RIVER near RAVENNA, NE
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BENCHMARKS

ELEVATION OF GAGE ZERO: 1983.730 VERTICAL DATUM: NGVD 1929
LEVELING AGENCY AND DATE: Level CHECKBAR: 0.000
RATING AGENCY: USGS

BENCHMARK	DESCRIPTION	GAGE ZERO	DATUM
RM1	AN "X" ON TOP OF LEFT UPSTREAM CORNER OF FLANGE OF LEFT UPSTREAM H PILE FOR LEFT UPSTREAM WINGWALL. EXISTENCE UNLIKELY IN 2002 AS NEW BRIDGE WAS INSTALLED IN 1985.	11.400	1995.130
RM2	AN "X" ON TOP OF LEFT DOWNSTREAM CORNER OF FLANGE OF LEFT DOWNSTREAM H PILE FOR LEFT DOWNSTREAM WINGWALL. EXISTENCE IN 2002 UNLIKELY AS NEW BRIDGE WAS INSTALLED IN 1985.	12.460	1996.190
RM3	TOP OF 1/2 INCH NUT ON HORIZONTAL BOLT ANCHORING CMP SHELTER TO SOUTHWEST CORNER POST OF SHELTER PLATFORM. DOES NOT EXIST ANYMORE AS SHELTER HAS BEEN REMOVED.	13.920	1997.650
RM4	HEAD OF 3/8 INCH LAG BOLT DRIVEN HORIZONTALLY INTO TELEPHONE POST 1 FT. ABOVE GROUND. POLE IS FIRST POLE NORTH OF BRIDGE ON WEST SIDE OF ROAD OR 102 FT. LEFT OF LEFT END OF BRIDGE AND 34 FT. UPSTREAM FROM CENTER OF ROAD. EXISTENCE IN 2002 UNKNOWN.	14.630	1998.360

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GAGES

DCP

TELEM

NESS ID:
 OWNER: USGS
 REPORT TIME:
 INTERVAL:

TYPE OF TELEMETRY:
 OWNER:
 PHONE NUMBER:
 INTERVAL:
 PAYOR/COST OF LINE: / \$

GAGE TYPE	OWNER	MAINTENANCE	BEGAN	ENDED	GAGE LOCATION/REMARKS
Unk	USGS	USGS	10/14/1940	09/30/1958	A-35 RECORDER INSTALLED BY USGS.
wireweight	USGS	USGS	10/14/1940	09/30/1958	ORIGINALLY ESTABLISHED AT PRESENT SITE AND DATUM BY USGS. GAGE ON DOWNSTREAM SIDE OF BRIDGE.
wireweight	NWS	NWS	09/28/1967	09/01/1975	STATION RE-ESTABLISHED BY USGS. GAGE LEFT TO NWS OBSERVER IN 1975. TYPE A GAGE IS ATTACHED TO THE UPSTREAM HANDRAIL ABOUT 55 FT. RIGHT OF THE LEFT ABUTMENT. WIRE WEIGHT WAS REMOVED AND LOST DURING BRIDGE CONSTRUCTION IN LATE 1984 AND 1985.
bubble	USGS	USGS	03/25/1968	09/01/1975	DIGITAL PUNCHED TAPE RECORDER AND STEVENS A-35 RECORDER DRIVEN BY MANOMETER INSTALLED BY USGS.
bubble	USGS	USGS	09/25/1969	09/01/1975	MANOMETER ORIFICE WAS INSTALLED IN FLUSHABLE SANDPOINT.

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HISTORY

PUBLICATION/LOCATION OF RECORDS	STARTING DATE	ENDING DATE
WRD NE	10/14/1940	09/30/1958
WRD NE	09/28/1967	09/01/1975

TYPE OF GAGE	OWNER	STARTING DATE	ENDING DATE
Unk	USGS	10/14/1940	09/30/1958
wireweight	USGS	10/14/1940	09/30/1958
wireweight	NWS	09/28/1967	09/01/1975
bubble	USGS	03/25/1968	09/01/1975
bubble	USGS	09/25/1969	09/01/1975

ZERO ELEVATION	STARTING DATE
1983.730	10/14/1940
1984.210	03/01/1958
1983.730	09/28/1967

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CRESTS

FLOOD STAGE: 5.00 ACTION STAGE: 4.00 BANKFULL STAGE: 0.00
 FLOOD FLOW: 2214 ACTION FLOW: 749

DATE OF CREST	TIME LST	CREST (ft)	FLOW (CFS)	FROM HIGH WATERMARKS	BASED ON OLD DATUM	CAUSED BY ICE JAM	REMARKS
06/02/1941	UNDEF	5.06	3050				
09/03/1942	UNDEF	5.70	4810				
06/14/1943	UNDEF	7.66	8600				
05/02/1944	UNDEF	4.90	2930				
06/09/1945	UNDEF	7.68	10000				
06/18/1946	UNDEF	4.80	2010				
06/22/1947	UNDEF	12.60	41000	X			
03/15/1948	UNDEF	6.38	7200				
02/25/1949	UNDEF	5.98					
06/09/1949	UNDEF	5.40	5550				
02/18/1950	UNDEF	4.90				X	
07/09/1950	UNDEF	4.88	2160				
05/31/1951	UNDEF	4.65	2210				
01/20/1952	UNDEF	5.18				X	
05/27/1952	UNDEF	4.65	1900				
05/27/1953	UNDEF	5.25	3150				
06/17/1954	UNDEF	7.12	11200				
03/03/1955	UNDEF	4.93				X	
05/25/1955	UNDEF	4.66	1460				
06/18/1956	UNDEF	5.07	2010				
06/16/1957	UNDEF	6.71	6580				
07/19/1958	UNDEF	7.80	7590				
06/24/1968	UNDEF	10.32	17100				
03/18/1969	UNDEF	7.33				X	
03/19/1969	UNDEF	5.59	3260				
01/30/1970	UNDEF	4.68				X	
06/14/1970	UNDEF	4.02	730				
02/19/1971	UNDEF	5.31				X	
06/30/1971	UNDEF	4.31	960				
07/26/1972	UNDEF	7.41	6660				
07/24/1973	UNDEF	6.65	4190				
06/09/1974	UNDEF	5.50	1770				
06/22/1975	UNDEF	5.50	2510				
03/09/1979	UNDEF	7.50				X	

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LOW WATER RECORDS

DATE OF LOW WATER	STAGE (ft)	FLOW (CFS)	REMARKS
10/14/1940	0.00	0	NO FLOW AT TIMES
08/28/1955		9	NO FLOW IS VARIABLE DUE TO SHIFTING SAND.

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CONDITIONS AFFECTING FLOW

MILES ABOVE MOUTH: 18.0 DRAINAGE AREA: 1660.0 POOL STAGE: 0.0

STREAM BED: COMPOSED MAINLY OF FINE, SHIFTING SAND.

REACH: VICINITY OF GAGE.

REGULATION: NONE.

DIVERSION: NUMEROUS SMALL PUMP DIVERSIONS ABOVE THE STATION.

WINTER: COMPLETE ICE COVER CAN BE EXPECTED DURING THE WINTER PERIODS
WITH SEVERE ICE JAMS OCCURRING AT BREAKUP.

TOPOGRAPHY: BOTH BANKS ARE FAIRLY HIGH AND NOT SUBJECT TO FREQUENT
OVERFLOWS. THERE IS TIMBER AND WILLOW GROWTH ON BOTH SIDES
ABOVE & BELOW THE BRIDGE.

REMARKS:

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DAMAGE

STAGE AREAS AFFECTED

-
- 5.00 AROUND 5 FEET, OVERFLOWS WILL GENERALLY BE MINOR IN NATURE AND CONFINED TO THE AGRICULTURAL LAND ADJACENT TO THE CHANNEL.
- 10.00 AT 10 FEET, THE SOUTHERN SECTIONS OF RAVENNA WILL FLOOD. THIS IS THE AREA PRIMARILY BETWEEN THE MUD CREEK AND THE RIVER ITSELF. HIGHWAY 2 MAY ACT A A BARRIER TO WATER SPILLING TOWARD TOWN. HOWEVER, THERE ARE SEVERAL HOMES AND A FEW BUSINESSES WHICH WOULD FLOOD WITH SUCH HIGH FLOWS. THE RECORD FLOOD WAS 12.60 FEET IN 1947.

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RIVER STAGE DATA

	13-	

	-----	12.60 06/22/1947
	12-	

	11-	

	-----	10.32 06/24/1968
10.00 - AT 10 FEET, THE SOUTHERN SECTIONS OF RAVENNA WILL FLOOD. THIS IS THE AREA PRIMARILY BETWEEN THE MUD CREEK AND THE RIVER ITSELF. HIGHWAY 2 MAY ACT A A BARRIER TO WATER SPILLING TOWARD TOWN. HOWEVER, THERE ARE SEVERAL HOMES AND A FEW BUSINESSES WHICH WOULD FLOOD WITH SUCH HIGH FLOWS. THE RECORD FLOOD WAS 12.60 FEET IN 1947.	10-	

	9-	

	8-	

	-----	7.80 07/19/1958
	-----	7.50 03/09/1979
	-----	7.33 03/18/1969
	7-	7.12 06/17/1954

	-----	6.71 06/16/1957

	-----	6.38 03/15/1948
	6-	
	-----	5.98 02/25/1949
	-----	5.70 09/03/1942
	-----	5.59 03/19/1969
	-----	5.40 06/09/1949
	5-	5.18 01/20/1952
5.00 - AROUND 5 FEET, OVERFLOWS WILL GENERALLY BE MINOR IN NATURE AND CONFINED TO THE AGRICULTURAL LAND ADJACENT TO THE CHANNEL.	-----	4.93 03/03/1955
	-----	4.80 06/18/1946

	-----	4.31 06/30/1971
	4-	4.02 06/14/1970

REACH: VICINITY OF GAGE.

ELEVATION ZERO: 1983.73

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CONTACTS

SQ	CONTACT/REMARKS	PHONE
1	BOB SVANDA	308-452-3234
	OFFICE PHONE: 308-452-3672	

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